

**DRAFT/PROPOSED**

**Title V Federal Operating Permit  
Article 1**

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Solutia Inc.
Facility Name:	CPFilms, Inc. – Fieldale Plant
Facility Location:	4210 The Great Road Fieldale, Virginia 24089
Registration Number:	30294
Permit Number:	WCRO-30294

DRAFT/PROPOSED, 2007  
Renewal Effective Date

-----, 2012  
Expiration Date

\_\_\_\_\_  
Steven A. Dietrich, P.E.  
Regional Director

\_\_\_\_\_  
Signature Date

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## **I. Facility Information**

### **Permittee**

Solutia Inc.  
P.O. Box 66760  
St. Louis, MO 63166-6760

### **Responsible Official**

Keith Dalton, Vice President, Operations

### **Operator**

CPFilms, Inc.  
P.O. Box 5068  
Martinsville, VA 24115

### **Facility**

CPFilms, Inc. – Fieldale Plant  
4210 The Great Road  
Fieldale, VA 24089

### **Contact Person**

Lindsay Vergara, Environmental Specialist  
276-627-3475

**County-Plant Identification Number:** 51-089-0035

**Facility Description:** NAICS code 322222 – CPFilms, Inc. is a manufacturer of solar controlled window film; the Fieldale facility consists of four dye baths that dye the film prior to further processing by the laminating and coating machines.

The facility is a Title V major source of volatile organic compounds (VOCs) and Hazardous Air Pollutants (HAPs). This source is located in an attainment area for all pollutants, and is a PSD major source for VOCs. The collection of web coating lines are subject to MACT JJJJ – Paper and Other Web Coating. The source is not subject to any New Source Performance Standards (NSPS).

## II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device (PCD) Description	Pollutant Controlled	Applicable Permit Date
Process Units						
01	01	Dye Line No. 1	45,000 ft <sup>2</sup> /hour			
03	03	Dye Line No. 3	55,000 ft <sup>2</sup> /hour			
04	04	Dye Line No. 4	78,000 ft <sup>2</sup> /hour			
05	05	Eclipse Lookout Boiler (Natural Gas)	10 MMBtu/hr (input)			
07	07a & 07b	Dye Line No. 7	74,000 ft <sup>2</sup> /hour	CPFilms custom design Ethylene Glycol Recovery System w/ precooler and mist eliminator. Bionomics ScubPac Proclean 15,000 Packed-Bed Scrubber	VOC & HAP	October 15, 2004
24	24/26	Faustel/Inta-Roto coating/laminating machine.	90,000 ft <sup>2</sup> /hour	MegTec RTO CS-300	VOC & HAP	
26	24/26	Faustel coating/laminating machine	90,000 ft <sup>2</sup> /hour	MegTec RTO CS-300	VOC & HAP	
27	27a & 27b	Faustel UV coating machine	90,000 ft <sup>2</sup> /hour	None		
28	28	Faustel coating/laminating machine	90,000 ft <sup>2</sup> /hour	Combustion Engineering/ABB, Cor-Pak 8000, direct flame afterburner	VOC & HAP	June 14, 1989
29	29	Faustel UV Coating /Laminating Machine	90,000 ft <sup>2</sup> /hour	TEC Grace Systems, Quantum	VOC & HAP	July 20, 2007
30	30	Faustel Silicone Coating Machine	90,000 ft <sup>2</sup> /hour	Combustion Engineering/ABB, Cor-Pak 8000, direct flame afterburner	VOC & HAP	July 20, 2007
31	31a	Faustel coating (UK-3) machine	112,000 ft <sup>2</sup> /hour	None		June 8, 1994

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device (PCD) Description	Pollutant Controlled	Applicable Permit Date
32	32	Lembo coating machine	90,000 ft <sup>2</sup> /hour	TEC Grace Systems, Shadow	VOC & HAP	January 30, 1997
33	33	Faustel coating/laminating machine	111,000 ft <sup>2</sup> /hour	TEC Grace Systems, Magnum	VOC & HAP	January 30, 1997
34	34	Faustel coating/laminating machine	111,000 ft <sup>2</sup> /hour	MegTec RTO, Enterprise	VOC & HAP	June 23, 2000

\*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

### **III. Fuel Burning Requirements – EU05**

#### **A. Limitations**

1. Fuel – The approved fuel for the Eclipse Lookout boiler is natural gas. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110)
2. Visible Emissions - Visible emissions from the boiler shall not exceed 20% opacity, except for one six-minute period in any one hour of not more than 60% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-40-80 and 9 VAC 5-80-110)

#### **B. Monitoring**

1. Visible Emissions – Visible emission observations from the boiler exhaust stack shall be conducted at least once per week. If visible emissions are observed, the permittee shall:
  - a. take timely corrective action such that the boiler resumes normal operation and there are no visible emissions from the boiler exhaust stack, or,
  - b. perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emission from the boiler exhaust stack does not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 20 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the line resumes operation with visible emissions of 20 percent or less.

The permittee shall maintain a visual observation log to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there was visible emission, any VEE recordings and any necessary corrective action.

After completing the weekly visible emissions observations at a given stack for a 6-month period without observing any visible emissions, the permittee may extend the requirement for weekly visible emissions observations at that stack to a schedule of once per month. The once per month observations shall be conducted in accordance with the procedures and requirements described above. In the event that visible emissions are observed from any given stack or process emission point, the corrective action procedures and Method 9 testing described above shall be immediately instituted. After correction of the opacity problem, the permittee shall resume weekly visible emission observations at that stack or process emission point. Once weekly visible emissions observations are completed for a 6-month period without observing any visible emissions, a monthly schedule may again be instituted at that stack or process emission point.  
(9 VAC 5-80-110)



2. Operation & Maintenance Procedures – The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:
  - a. develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance;
  - b. maintain an inventory of spare parts;
  - c. have available written operating procedures for equipment. These procedures shall be based on the manufacturer’s recommendations, at a minimum; and
  - d. train operators in the proper operation of all air pollution control equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance, inspections and training shall be maintained on site for a period of five (5) years and shall be made available to the DEQ personnel upon request.  
(9 VAC 5-80-110 and 9 VAC 5-50-20E)

### **C. Recordkeeping**

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Air Compliance Manager, West Central Regional Office. These records shall include, but are not limited to:
  - a. the annual throughput of natural gas (in million cubic feet) for the Eclipse Lookout boiler, calculated as the sum of each consecutive twelve (12) month period;
  - b. the results of the weekly and/or monthly opacity observations and any corrective actions to reduce emissions as required in Condition III.B.1; and
  - c. maintenance and training records required by Condition III.B.2.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-110)

### **D. Testing**

1. Testing/Monitoring Ports - The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30 and 9 VAC 5-80-110)

## **E. Reporting**

1. Performance Tests – The details of all performance tests are to be arranged with the Air Compliance Manager, West Central Regional Office. The permittee shall submit a test protocol at least thirty (30) days prior to testing. One copy of the test results shall be submitted to the Air Compliance Manager, West Central Regional Office within 45 days after test completion.  
(9 VAC 5-80-110 and 9 VAC 5-80-1180)

See General Conditions, Section XV.C, D, E and F for additional reporting requirements.

## **IV. Process Equipment Requirements – EU28**

### **A. Limitations**

1. Emission Controls –Total emissions from the coater laminator (EU28) shall be controlled by a regenerative (technically, recuperative) thermal oxidizer (RTO). The RTO shall maintain the minimum temperature that was determined during the most recent performance test that showed compliance. The RTO shall be provided with adequate access for inspection.  
(9 VAC 5-80-110 and Condition 5 of June 14, 1989 NSR Permit)
2. Production– The annual production of coated polyester (EU28) shall not exceed 190 million square feet, calculated as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 3 of June 14, 1989 NSR Permit)
3. Emission Limit – Emissions from the operation of the coater laminator (EU28) shall not exceed the limits specified below:

Volatile Organic Compounds	11.2 lbs/hr	33.6 tons/yr
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(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 4 of June 14, 1989 NSR Permit)

4. Visible Emissions - Visible emissions from the coater laminator (EU28) shall not exceed 20% opacity, except for one six minute period in any one hour of not more than 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-50-80 and 9 VAC 5-80-110)

### **B. Monitoring**

1. Monitoring Device – The RTO (controlling EU28) shall be equipped with a device to continuously measure and record the combustion chamber temperature. The device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the regenerative thermal oxidizer is operating.  
(9 VAC 5-80-110)

2. Visible Emissions – Visible emission observations from the coater laminator (EU28) exhaust stack shall be conducted at least once per week. If visible emissions are observed, the permittee shall:
- a. take timely corrective action such that the coater laminator (EU28) resumes normal operation and there are no visible emissions from the coater laminator (EU28) exhaust stack, or,
  - b. perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emission from the coater laminator exhaust stack does not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 20 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the line resumes operation with visible emissions of 20 percent or less.

The permittee shall maintain a visual observation log to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there was visible emission, any VEE recordings and any necessary corrective action.

After completing the weekly visible emissions observations at a given stack for a 6-month period without observing any visible emissions, the permittee may extend the requirement for weekly visible emissions observations at that stack to a schedule of once per month. The once per month observations shall be conducted in accordance with the procedures and requirements described above. In the event that visible emissions are observed from any given stack or process emission point, the corrective action procedures and Method 9 testing described above shall be immediately instituted. After correction of the opacity problem, the permittee shall resume weekly visible emission observations at that stack or process emission point. Once weekly visible emissions observations are completed for a 6-month period without observing any visible emissions, a monthly schedule may again be instituted at that stack or process emission point.  
(9 VAC 5-80-110)

3. Operations and Maintenance – The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:
- a. develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance;
  - b. maintain an inventory of spare parts;
  - c. have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum; and
  - d. train operators in the proper operation of all air pollution control equipment and familiarize the operators with the written operating procedures. The permittee shall

maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance, inspections and training shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.  
(9 VAC 5-80-110 and Condition 7 of June 14, 1989 NSR Permit)

### **C. Recordkeeping**

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Air Compliance Manager, West Central Regional Office. These records shall include, but are not limited to:
  - a. annual throughput of the amount of coated polyester film, calculated monthly as the sum of each consecutive twelve (12) month period; (Condition 9 of June 14, 1989 NSR Permit)
  - b. annual throughput and emission of VOCs, calculated monthly as the sum of each consecutive twelve (12) month period.
  - c. The permittee shall maintain Material Safety Data Sheets (MSDS) or Certified Product Data Sheets (CPDS) and formulation data showing VOC content, HAP content, water content and solids content for each coating, adhesive, thinner, cleaning solution or other materials used in the coater laminator (EU28). In the absence of such documentation, the permittee shall keep onsite records showing VOC content of raw materials determined using 40 CFR Part 60, Appendix A Reference Method 24 or equivalent method acceptable to the DEQ;
  - d. operation and control device monitoring records for the regenerative thermal oxidizer as required by Condition IV.B.1;
  - e. the results of the weekly and/or monthly opacity observations and any corrective actions to reduce emissions as required in Condition IV.B.2; and
  - f. maintenance and training records required by Condition IV.B.3

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-110)

### **D. Testing**

1. Testing/Monitoring Ports - The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30 and 9 VAC 5-80-110)

## **E. Reporting**

1. Performance Tests – The details of all performance tests are to be arranged with the Air Compliance Manager, West Central Regional Office. The permittee shall submit a test protocol at least thirty (30) days prior to testing. One copy of the test results shall be submitted to the Air Compliance Manager, West Central Regional Office within 45 days after test completion.  
(9 VAC 5-80-110 and 9 VAC 5-80-1180)

See General Conditions, Section XV.C, D, E and F for additional reporting requirements.

## **V. Process Equipment Requirements – EU29 and EU30**

### **A. Limitations**

1. Emission Controls –VOC emissions from the UV coater/laminator (EU29) shall be controlled by a catalytic incinerator. The overall (capture and destruction) control efficiency shall be 95 percent or greater as measured by testing. The catalytic incinerator shall maintain a minimum combustion zone temperature of 600°F or the minimum temperature that was determined during the most recent performance test that demonstrated at least 95% overall VOC control. The catalytic incinerator shall be provided with adequate access for inspection and shall be in operation when the UV coater/laminator line (EU29) is operating.  
(9 VAC 5-80-110 and Condition 2 of July 20, 2007 NSR Permit)
2. Emission Controls –VOC emissions from the silicone coating line (EU30) shall be controlled by incineration. The overall (capture and destruction) VOC control efficiency shall be 95 percent or greater as measured by testing. The incinerator shall maintain a temperature of 1,400°F or the minimum temperature that was determined during the most recent performance test that demonstrated at least 95% overall VOC control. The incinerator shall be provided with adequate access for inspection and shall be in operation when the Silicone coating line (EU30) is operating.  
(9 VAC 5-80-110 and Condition 3 of July 20, 2007 NSR Permit)
3. Fuel – The approved fuel for the incinerators is natural gas. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110 and Condition 10 of July 20, 2007 NSR Permit)
4. Throughput Limit – The throughput of VOC through the UV coater/laminator line (EU29) shall not exceed 368 tons per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-1180 and Condition 8 of July 20, 2007 NSR Permit)

5. Throughput Limit – The throughput of VOC through the Silicone coating line (EU30) shall not exceed 204 tons per year, calculated monthly as the sum of each consecutive 12-month period.

(9 VAC 5-80-1180 and Condition 9 of July 20, 2007 NSR Permit)

6. Emission Limit – Emissions from the operation of the UV coater/laminator (EU29) shall not exceed the limits specified below:

Volatile Organic Compounds	12.6 lbs/hr	18.4 tons/yr
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(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 12 of July 20, 2007 NSR Permit)

7. Emission Limit – Emissions from the operation of the silicone coating line (EU30) shall not exceed the limits specified below:

Volatile Organic Compounds	3.7 lbs/hr	10.2 tons/yr
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(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 13 of July 20, 2007 NSR Permit)

8. Visible Emissions - Visible emissions from the UV coater/laminator (EU29) and the silicone coating line (EU30) each shall not exceed 5% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

(9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 14 of July 20, 2007 NSR Permit)

9. VOC Work Practice Standards – At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.

(9 VAC 5-50-20 F, 9 VAC 5-80-1180 and Condition 6 of July 20, 2007 NSR Permit)

## **B. Monitoring**

1. Monitoring Device – The catalytic incinerator (controlling EU29) shall be equipped with temperature monitoring devices to continuously measure and record the temperature at the catalytic incinerator inlet and outlet. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the UV coater/laminator line (EU29) is operating.

(9 VAC 5-80-110 and Condition 4 of July 20, 2007 NSR Permit)

2. Monitoring Device – The incinerator (controlling EU30) shall be equipped with a device to continuously measure and record the combustion chamber temperature. Each monitoring device shall be installed, maintained, calibrated and operated in accordance

with approved procedures which shall be include, as a minimum the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access and shall be in operation when the Silicone coating line (EU30) is operating.

(9 VAC 5-80-110 and Condition 5 of July 20, 2007 NSR Permit)

3. Visible Emissions – Visible emission observations of each incinerator stack shall be conducted at least once per week. If visible emissions are observed, the permittee shall:
  - a. take timely corrective action such that the incinerator resumes normal operation and there are no visible emissions from the incinerator exhaust stack, or,
  - b. perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emission from the incinerator exhaust stack does not exceed 5 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 5 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the line resumes operation with visible emissions of 5 percent or less.

The permittee shall maintain a visual observation log(s) to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there was visible emission, any VEE recordings and any necessary corrective action.

After completing the weekly visible emissions observations at a given stack for a 6-month period without observing any visible emissions, the permittee may extend the requirement for weekly visible emissions observations at that stack to a schedule of once per month. The once per month observations shall be conducted in accordance with the procedures and requirements described above. In the event that visible emissions are observed from any given stack or process emission point, the corrective action procedures and Method 9 testing described above shall be immediately instituted. After correction of the opacity problem, the permittee shall resume weekly visible emission observations at that stack or process emission point. Once weekly visible emissions observations are completed for a 6-month period without observing any visible emissions, a monthly schedule may again be instituted at that stack or process emission point.

(9 VAC 5-80-110)

4. Operations and Maintenance – The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:
  - a. develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance and maintain an inventory of spare parts (Condition 26 of July 20, 2007 NSR Permit);

- b. activity tests shall be conducted on the catalyst (catalytic incinerator controlling EU29) for activity level in percent of VOC destruction to determine the catalyst capability of achieving 95 percent or greater VOC destruction. The tests shall be conducted on an annual basis. The details of the tests are to be arranged with the Air Compliance Manager, West Central Regional Office. One written copy of the test results shall be submitted to the West Central Regional Office in writing within 45 days after test completion (Condition 15 of July 20, 2007 NSR Permit);
- c. have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum (Condition 26 of July 20, 2007 NSR Permit); and
- d. train operators in the proper operation of all air pollution control equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training (Condition 26 of July 20, 2007 NSR Permit).

### **C. Recordkeeping**

- 1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Air Compliance Manager, West Central Regional Office. These records shall include, but are not limited to:
  - a. annual throughput of each coating used on the UV Coater/laminator (EU29) and the Silicone coating line (EU30), calculated monthly as the sum of each consecutive twelve (12) month period; (Condition 19 of July 20, 2007 NSR Permit)
  - b. annual throughput and emissions of VOCs and HAPs for EU29 and EU30, calculated monthly as the sum of each consecutive twelve (12) month period;
  - c. the permittee shall maintain Material Safety Data Sheets (MSDS) or Certified Product Data Sheets (CPDS) and formulation data showing VOC content, HAP content, water content and solids content for each coating, adhesive, thinner and cleaning solution or other materials used in the UV coater/laminator (EU29) and silicone coating line (EU30). In the absence of such documentation, the permittee shall keep onsite records showing VOC content of raw materials determined using 40 CFR Part 60, Appendix A Reference Method 24 or equivalent method acceptable to the DEQ; (Condition 19 of July 20, 2007 NSR Permit)
  - d. records of manufacturer's recommendations for catalyst bed replacement and records of actual catalyst bed replacement (catalytic incinerator controlling EU29); (Condition 19 of July 20, 2007 NSR Permit)



- e. operation and control device monitoring records for the air pollution control devices as required by Conditions V.B.1 and V.B.2; (Condition 19 of July 20, 2007 NSR Permit)
- f. the results of the weekly and/or monthly opacity observations and any corrective actions to reduce emissions as required in Condition V.B.3; and
- g. activity test, maintenance and training records required by Condition V.B.4. (Condition 19 of July 20, 2007 NSR Permit)

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-110)

#### **D. Testing**

1. Testing/Monitoring Ports - The UV coater/laminator line (EU29) and Silicone coating line (EU30) shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. This includes constructing the facility/equipment such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing a stack or duct that is free from cyclonic flow. Sampling ports shall be provided when requested and safe sampling platforms and access shall be provided.  
(9 VAC 5-50-30, 9 VAC 5-80-110 and Condition 7 of July 20, 2007 NSR Permit)
2. Stack Tests – Upon request by the DEQ, the permittee shall conduct performance tests to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Air Compliance Manager, West Central Regional Office.  
(9 VAC 5-50-30G and Condition 16 of July 20, 2007 NSR Permit)
3. Visible Emissions Evaluations – Upon request by the DEQ, the permittee shall conduct visible emissions evaluations to demonstrate compliance with the visible emission limits contained in this permit. The details of the tests shall be arranged with the Air Compliance Manager, West Central Regional Office.  
(9 VAC 5-50-30G and Condition 17 of July 20, 2007 NSR Permit)

#### **E. Reporting**

1. Performance Tests – The details of all performance tests are to be arranged with the Air Compliance Manager, West Central Regional Office. The permittee shall submit a test protocol at least thirty (30) days prior to testing. One copy of the test results shall be submitted to the Air Compliance Manager, West Central Regional Office within 45 days after test completion.  
(9 VAC 5-80-110 and 9 VAC 5-80-1180)

See General Conditions, Section XV.C, D, E and F for additional reporting requirements.

## **VI. Process Equipment Requirements – EU31**

### **A. Limitations**

1. Emission Controls – VOC emissions from the polyester film coating line (EU31) shall be controlled by the use of waterborne coatings. For the purposes of this permit, a waterborne coating is defined as a coating whose volatile portion consists of 75 percent or more by volume of water and 25 percent or less by volume of volatile organic compounds. The coating line shall be provided with adequate access for inspection.  
(9 VAC 5-80-110 and Condition 3 of June 8, 1994 NSR Permit)
2. Fuel – The approved fuel for the polyester coating line dryer is natural gas. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110 and Condition 4 of June 8, 1994 NSR Permit)
3. Throughput Limit – The annual throughput of coating for the polyester film coating line (EU31) shall not exceed 39.1 tons per year of VOCs, calculated as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 6 of June 8, 1994 NSR Permit)
4. Emission Limit – Emissions from the operation of the polyester film coating line (EU31) shall not exceed the limits specified below:

Nitrogen Oxides (as NO <sub>2</sub> )	1.14 lbs/hr	5.00 tons/yr
Carbon Monoxide	0.29 lbs/hr	1.25 tons/yr
Volatile Organic Compounds	29.97 lbs/hr	39.10 tons/yr
Isopropyl Alcohol	28.80 lbs/hr	37.44 tons/yr

(9 VAC 5-80-110 and Condition 8 of June 8, 1994 NSR Permit)

5. Visible Emissions - Visible emissions from the polyester coating line (EU31) shall not exceed 5% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 9 of June 8, 1994 NSR Permit)

### **B. Monitoring**

1. Visible Emissions – Visible emission observations of the polyester film coating line exhaust stack shall be conducted at least once per week. If visible emissions are observed, the permittee shall:

- a. take timely corrective action such that the polyester film coating line resumes normal operation and there are no visible emissions from the polyester film coating line exhaust stack, or,
- b. perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emission from the polyester film coating line exhaust stack does not exceed 5 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 5 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the line resumes operation with visible emissions of 5 percent or less.

The permittee shall maintain a visual observation log to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there was visible emission, any VEE recordings and any necessary corrective action.

After completing the weekly visible emissions observations at a given stack for a 6-month period without observing any visible emissions, the permittee may extend the requirement for weekly visible emissions observations at that stack to a schedule of once per month. The once per month observations shall be conducted in accordance with the procedures and requirements described above. In the event that visible emissions are observed from any given stack or process emission point, the corrective action procedures and Method 9 testing described above shall be immediately instituted. After correction of the opacity problem, the permittee shall resume weekly visible emission observations at that stack or process emission point. Once weekly visible emissions observations are completed for a 6-month period without observing any visible emissions, a monthly schedule may again be instituted at that stack or process emission point.

(9 VAC 5-80-110)

2. Operations and Maintenance – The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:
  - a. develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

Records of maintenance, inspections and training shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.

(9 VAC 5-80-110 and Condition 15 of June 8, 1994 NSR Permit)

### **C. Recordkeeping**

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Air Compliance Manager, West Central Regional Office. These records shall include, but are not limited to:

- a. daily records demonstrating that coatings applied meet the definition of waterborne coatings (Condition 11 of June 8, 1994 NSR Permit);
- b. annual throughput and emissions of VOCs and isopropyl alcohol, calculated monthly as the sum of each consecutive twelve (12) month period (Condition 11 of June 8, 1994 NSR Permit);
- c. The permittee shall maintain Material Safety Data Sheets (MSDS) or Certified Product Data Sheets (CPDS) and formulation data showing VOC content, HAP content, water content and solids content for each coating, adhesive, thinner, cleaning solution, or other materials used in coating line EU31. In the absence of such documentation, the permittee shall keep onsite records showing VOC content of raw materials determined using 40 CFR Part 60, Appendix A Reference Method 24 or equivalent method acceptable to the DEQ;
- d. the results of the weekly and/or monthly opacity observations and any corrective actions to reduce emissions as required in Condition VI.B.1;
- e. maintenance and training records required by Condition VI.B.2. (Condition 15 of June 8, 1994 NSR Permit); and
- f. the annual throughput of natural gas (in million cubic feet) for the dryer, calculated as the sum of each consecutive twelve (12) month period.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-110)

#### **D. Testing**

1. Testing/Monitoring Ports - The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30, 9 VAC 5-80-110 and Condition 5 of June 8, 1994 NSR Permit)

#### **E. Reporting**

1. Performance Tests – The details of all performance tests are to be arranged with the Air Compliance Manager, West Central Regional Office. The permittee shall submit a test protocol at least thirty (30) days prior to testing. One copy of the test results shall be submitted to the Air Compliance Manager, West Central Regional Office within 45 days after test completion.  
(9 VAC 5-80-110 and 9 VAC 5-80-1180)

See General Conditions, Section XV.C, D, E and F for additional reporting requirements.

## VII. Process Equipment Requirements – EU32 and EU33

### A. Limitations

1. Emission Controls –VOC emissions from the silicone coating line (EU32) shall be controlled by thermal oxidation. The overall (capture and destruction) control efficiency shall be 95 percent or greater. The thermal oxidizer shall maintain a minimum temperature of 1,400°F or the minimum temperature that was determined during the most recent performance test that demonstrated at least 95 percent overall VOC control. The thermal oxidizer shall be provided with adequate access for inspection.  
(9 VAC 5-80-110 and Condition 3 of January 30, 1997 NSR Permit)
2. Emission Controls –VOC emissions from the SR UV coater and pressure sensitive adhesive coating line (EU33) shall be controlled by a catalytic incinerator. The overall (capture and destruction) control efficiency shall be 95 percent or greater. The catalytic incinerator shall maintain a minimum combustion zone temperature of 600°F or the minimum temperature that was determined during the most recent performance test that demonstrated at least 95 percent overall VOC control. The catalytic incinerator shall be provided with adequate access for inspection.  
(9 VAC 5-80-110 and Conditions 4 and 5 of January 30, 1997 NSR Permit)
3. Fuel – The approved fuel for the incinerators is natural gas. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110 and Condition 8 of January 30, 1997 NSR Permit)
4. Emission Limit – Emissions from the operation of the silicone coating line (EU32) shall not exceed the limits specified below:

Volatile Organic Compounds	3.9 lbs/hr	12.4 tons/yr
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(9 VAC 5-80-110 and Condition 13 of January 30, 1997 NSR Permit)
5. Emission Limit – Emissions from the operation of the SR UV coater and pressure sensitive adhesive coating line (EU33) shall not exceed the limits specified below:

Volatile Organic Compounds	51.4 lbs/hr	27.0 tons/yr
Acrylic Acid	0.6 lbs/hr	0.5 tons/yr

  
(9 VAC 5-80-110 and Condition 14 of January 30, 1997 NSR Permit)
6. Visible Emissions - Visible emissions from the oxidizer and incinerator shall each not exceed 5% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 15 of January 30, 1997 NSR Permit)

## **B. Monitoring**

1. Monitoring Device – The thermal oxidizer (controlling EU32) shall be equipped with a device to continuously measure temperature. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.  
(9 VAC 5-80-110 and Condition 3 of January 30, 1997 NSR Permit)
2. Monitoring Device – The catalytic incinerator (controlling EU33) shall be equipped with a device to continuously measure and record the temperatures at the catalytic incinerator inlet and outlet. The devices shall be installed in an accessible location and shall be maintained by the permittee such that they are in proper working order at all times.  
(9 VAC 5-80-110 and Condition 7 of January 30, 1997 NSR Permit)
3. Catalyst Activity Tests - Activity tests shall be conducted on the catalyst for activity level in percent of VOC destruction to determine the catalyst capability of achieving 95 percent or greater VOC destruction. The tests shall be conducted on an annual basis. The details of the tests are to be arranged with the Air Compliance Manager, West Central Regional Office. Two written copies of the test results shall be submitted to the West Central Regional Office within 45 days after test completion.  
(9 VAC 5-80-110 and Condition 6 of January 30, 1997 NSR Permit)
4. Visible Emissions – Visible emission observations from the oxidizer and incinerator exhaust stacks shall be conducted at least once per week. If visible emissions are observed, the permittee shall:
  - a. take timely corrective action such that the oxidizer and/or incinerator resumes normal operation and there are no visible emissions from the oxidizer and/or incinerator exhaust stack, or,
  - b. perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emission from the oxidizer and/or incinerator exhaust stack does not exceed 5 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 5 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the line resumes operation with visible emissions of 5 percent or less.

The permittee shall maintain a visual observation log(s) to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there was visible emission, any VEE recordings and any necessary corrective action.

After completing the weekly visible emissions observations at a given stack for a 6-month period without observing any visible emissions, the permittee may extend the requirement for weekly visible emissions observations at that stack to a schedule of once per month. The once per month observations shall be conducted in accordance with the procedures

and requirements described above. In the event that visible emissions are observed from any given stack or process emission point, the corrective action procedures and Method 9 testing described above shall be immediately instituted. After correction of the opacity problem, the permittee shall resume weekly visible emission observations at that stack or process emission point. Once weekly visible emissions observations are completed for a 6-month period without observing any visible emissions, a monthly schedule may again be instituted at that stack or process emission point.

(9 VAC 5-80-110)

5. Operations and Maintenance – The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

- a. develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance and maintain an inventory of spare parts (Condition 21 of January 30, 1997 NSR Permit);
- b. activity tests shall be conducted on the catalyst for activity level in percent of VOC destruction to determine the catalyst capability of achieving 95 percent or greater VOC destruction. The tests shall be conducted on an annual basis. The details of the tests are to be arranged with the Air Compliance Manager, West Central Regional Office. Two written copy of the test results shall be submitted to the West Central Regional Office in writing within 45 days after test completion (Condition 6 of January 30, 1997 NSR Permit);
- c. have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum (Condition 22 of January 30, 1997 NSR Permit); and
- d. train operators in the proper operation of all air pollution control equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training (Condition 22 of January 30, 1997 NSR Permit).

Records of maintenance, inspections and training shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.

(9 VAC 5-80-110)

### **C. Recordkeeping**

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Air Compliance Manager, West Central Regional Office. These records shall include, but are not limited to:

- a. annual throughput of VOCs for the Silicone coating line (EU32). The emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period;
- b. annual throughput of VOCs for the SR coating and Pressure Sensitive Adhesive coating line (EU33). The emissions shall be calculated monthly as the sum of each consecutive twelve (12) month period;
- c. annual acrylic acid emissions calculated monthly as the sum of each consecutive twelve (12) month period;
- d. manufacturer's recommendations for catalyst bed replacement and records of actual catalyst bed replacement as required by Condition VII.B.3;
- e. the permittee shall maintain Material Safety Data Sheets (MSDS) or Certified Product Data Sheets (CPDS) and formulation data showing VOC content, HAP content, water content and solids content for each coating, adhesive, thinner, cleaning solution, or other materials used in coating lines EU32 and EU33. In the absence of such documentation, the permittee shall keep onsite records showing VOC content of raw materials determined using 40 CFR Part 60, Appendix A Reference Method 24 or equivalent method acceptable to the DEQ;
- f. operation and control device monitoring records for the control devices as required by Conditions VII.B.1 and VII.B.2;
- g. the results of the weekly and/or monthly opacity observations and any corrective actions to reduce emissions as required in Condition VII.B.4; and
- h. maintenance and training records required by Condition VII.B.5. (Condition 22 of January 30, 1997 NSR Permit);

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110 and Condition 17 of January 30, 1997 NSR Permit)

#### **D. Testing**

- 1. Testing/Monitoring Ports - The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30, 9 VAC 5-80-110 and Condition 9 of January 30, 1997 NSR Permit)

#### **E. Reporting**

- 1. Performance Tests – The details of all performance tests are to be arranged with the Air Compliance Manager, West Central Regional Office. The permittee shall submit a test protocol at least thirty (30) days prior to testing. One copy of the test results shall be



submitted to the Air Compliance Manager, West Central Regional Office within 45 days after test completion.  
(9 VAC 5-80-110 and 9 VAC 5-80-1180)

See General Conditions, Section XV.C, D, E and F for additional reporting requirements.

## **VIII. Process Equipment Requirements – EU34**

### **A. Limitations**

1. Emission Controls – VOC emissions from the SR UV coater and pressure sensitive adhesive coating line (EU34) shall be controlled by a regenerative thermal oxidizer. The regenerative thermal oxidizer shall maintain a minimum temperature of 1400°F and shall achieve a control efficiency for VOCs of no less than 95%, as measured by testing. The regenerative thermal oxidizer shall be provided with adequate access for inspection and shall be in operation when the SR UV coater and pressure sensitive adhesive coating line (EU34) is operating.  
(9 VAC 5-80-110, 9 VAC 5-50-260 and Conditions 3 and 4 of June 23, 2000 NSR Permit)
2. Fuel – The approved fuel for the regenerative thermal oxidizer is natural gas. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110 and Condition 6 of June 23, 2000 NSR Permit)
3. Emission Limit – Emissions from the operation of the SR UV coater and pressure sensitive adhesive coating line (EU34) shall not exceed the limits specified below:

Volatile Organic Compounds	57.3 lbs/hr	39.4 tons/yr
Acrylic Acid	0.5 lbs/hr	0.5 tons/yr

  
(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 8 of June 23, 2000 NSR Permit)
4. Visible Emissions - Visible emissions from the regenerative thermal oxidizer shall not exceed 5% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.  
(9 VAC 5-50-80, 9 VAC 5-50-260, 9 VAC 5-80-110 and Condition 9 of June 23, 2000 NSR Permit)

### **B. Monitoring**

1. Monitoring Device – The regenerative thermal oxidizer (controlling EU34) shall be equipped with a device to continuously measure and record the combustion chamber temperature. The device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the

2. manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the regenerative thermal oxidizer is operating.  
(9 VAC 5-80-110 and Condition 5 of June 23, 2000 NSR Permit)
3. Visible Emissions – Visible emission observations from the regenerative thermal oxidizer exhaust stack shall be conducted at least once per week. If visible emissions are observed, the permittee shall:
  - a. take timely corrective action such that the regenerative thermal oxidizer resumes normal operation and there are no visible emissions from the regenerative thermal oxidizer exhaust stack, or,
  - b. perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emission from the regenerative thermal oxidizer exhaust stack does not exceed 5 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 5 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the line resumes operation with visible emissions of 5 percent or less.

The permittee shall maintain a visual observation log to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there was visible emission, any VEE recordings and any necessary corrective action.

After completing the weekly visible emissions observations at a given stack for a 6-month period without observing any visible emissions, the permittee may extend the requirement for weekly visible emissions observations at that stack to a schedule of once per month. The once per month observations shall be conducted in accordance with the procedures and requirements described above. In the event that visible emissions are observed from any given stack or process emission point, the corrective action procedures and Method 9 testing described above shall be immediately instituted. After correction of the opacity problem, the permittee shall resume weekly visible emission observations at that stack or process emission point. Once weekly visible emissions observations are completed for a 6-month period without observing any visible emissions, a monthly schedule may again be instituted at that stack or process emission point.  
(9 VAC 5-80-110)

4. Operations and Maintenance – The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:
  - a. develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance and maintain an inventory of spare parts (Condition 17 of June 23, 2000 NSR Permit);

- b. have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum (Condition 17 of June 23, 2000 NSR Permit); and
- c. train operators in the proper operation of all air pollution control equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training (Condition 17 of June 23, 2000 NSR Permit).

Records of maintenance, inspections and training shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.

(9 VAC 5-80-110)

### **C. Recordkeeping**

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Air Compliance Manager, West Central Regional Office. These records shall include, but are not limited to:
  - a. annual throughput of VOCs for the SR UV coater and pressure sensitive adhesive coating line (EU34). The throughput shall be calculated monthly as the sum of each consecutive twelve (12) month period;
  - b. annual acrylic acid emissions calculated monthly as the sum of each consecutive twelve (12) month period;
  - c. the permittee shall maintain Material Safety Data Sheets (MSDS) or Certified Product Data Sheets (CPDS) and formulation data showing VOC content, HAP content, water content and solids content for each coating, adhesive, thinner, cleaning solution, or other materials used in SR UV coater and pressure sensitive adhesive coating line (EU34). In the absence of such documentation, the permittee shall keep onsite records showing VOC content of raw materials determined using 40 CFR Part 60, Appendix A Reference Method 24 or equivalent method acceptable to the DEQ;
  - d. operation and control device monitoring records for the regenerative thermal oxidizer as required by Condition VIII.B.1;
  - e. the results of the weekly and/or monthly opacity observations and any corrective actions to reduce emissions as required in Condition VIII.B.3; and
  - f. maintenance and training records required by Condition VIII.B.4. (Condition 17 of June 23, 2000 NSR Permit);

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110 and Condition 10 of June 23, 2000 NSR Permit)

#### **D. Testing**

1. Testing/Monitoring Ports - The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.

(9 VAC 5-50-30, 9 VAC 5-80-110 and Condition 11 of June 23, 2000 NSR Permit)

#### **E. Reporting**

1. Performance Tests – The details of all performance tests are to be arranged with the Air Compliance Manager, West Central Regional Office. The permittee shall submit a test protocol at least thirty (30) days prior to testing. One copy of the test results shall be submitted to the Air Compliance Manager, West Central Regional Office within 45 days after test completion.

(9 VAC 5-80-110 and 9 VAC 5-80-1180)

See General Conditions, Section XV.C, D, E and F for additional reporting requirements.

### **IX. Process Equipment Requirements – EU07**

#### **A. Limitations**

1. Emission Controls –VOC emissions from the Dye Line #7 (EU07) shall be controlled by permanent total enclosure (capture efficiency of 100%), a packed-bed scrubber having a VOC removal efficiency of 90% or greater, and good operating practices. The packed-bed scrubber shall be provided with adequate access for inspection and shall be in operation when Dye Line #7 (EU07) is operating.

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 3 of October 15, 2004 SOP)

2. Emission Controls –Hazardous Air Pollutant (HAP) emissions (ethylene glycol) from the Dye Line #7 (EU07) shall be controlled by permanent total enclosure (capture efficiency 100%) and a solvent recovery system having an ethylene glycol recovery of 90% or greater. The Ethylene Glycol Recovery System shall consist of enclosing the dye bath with a hood, and venting the hood to a reclaim system. The reclaim system shall include a pre-cooler sufficient to condense ethylene glycol (EG) vapors. The EG vapors shall be vented through demisters to collect the condensate into a storage tank for direct reuse. The solvent recovery system shall be provided with adequate access for inspection and shall be in operation when Dye Line #7 (EU07) is operating.

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 4 of October 15, 2004 SOP)

3. Fugitive Emissions – VOCs shall not be intentionally spilled, discarded in sewers, stored in open containers in an uncontrolled environment, or handled in any manner that would result in evaporation beyond that consistent with air pollution control practices for minimizing emissions.

(9 VAC 5-80-110 and Condition 5 of October 15, 2004 SOP)

4. Production Limit – The production of film through the Dye Line #7 (EU07) shall not exceed 74,000 square feet per hour, or 648,000,000 square feet per year calculated monthly as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 12 of October 15, 2004 SOP)

5. Emission Limit – Emissions from the operation of the Dye Line #7 (EU07) shall not exceed the limits specified below:

Volatile Organic Compounds	10 ppm	2.1 lbs/hr	9.0 tons/yr
Ethylene Glycol		1.9 lbs/hr	8.2 tons/yr
N-methylpyrrolidone		0.2 lbs/hr	0.8 tons/yr

Hourly emissions shall be calculated as a monthly average; annual emission shall be calculated monthly as the sum of each consecutive twelve (12) month period.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence for exceeding of emission limits. Compliance with these emission limits may be determined as stated in Condition number VIII.A.3.

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 13 of October 15, 2004 SOP)

6. Visible Emissions - Visible emissions from the Dye Line #7 (EU07) shall not exceed 5% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 10% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.  
(9 VAC 5-50-80, 9 VAC 5-50-260, 9 VAC 5-80-110 and Condition 15 of October 15, 2004 SOP)

7. Facility or Control Equipment Malfunction – Upon request of the DEQ, Dye Line #7 (EU07), shall shutdown immediately if its emissions increase in any amount because of a bypass, malfunction, shutdown or failure of the process or its associated air pollution control equipment. Dye Line #7 (EU07) shall not return to operation until it and the associated air pollution control equipment are able to operate in the proper manner.  
(9 VAC 5-80-110 and Condition 26 of October 15, 2004 SOP)

## **B. Monitoring**

1. Monitoring Device/PTE – The permanent total enclosure used to control VOC and HAP emissions from Dye Line #7 (EU07) shall be equipped with a room pressure monitor to continuously measure the room negative pressure. The monitoring device shall be installed, maintained, calibrated and operated in accordance approved procedures which shall include, as a minimum, the manufacturer's written requirements or

recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the Dye Line #7 (EU07) is operating.  
(9 VAC 5-80-110 and Condition 6 of October 15, 2004 SOP)

2. Monitoring Device Observation/PTE – The room pressure monitor used to continuously measure the room negative pressure shall be observed by the permittee with a frequency not less than once per day or more frequently as sufficient to ensure good performance of the permanent total enclosure. The permittee shall keep a log of observations from the room pressure monitor.  
(9 VAC 5-80-110 and Condition 9 of October 15, 2004 SOP)
3. Monitoring Device/Packed Bed Scrubber – The packed bed scrubber used to control VOC and HAP emissions from Dye Line #7 (EU07) shall be equipped with a device to continuously measure and record the scrubber liquid flow rate or the scrubber refresh flow rate. The monitoring device shall be installed, maintained, calibrated and operated in accordance approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the packed bed scrubber is operating.  
(9 VAC 5-80-110 and Condition 7 of October 15, 2004 SOP)
4. Monitoring Device Observation/Packed Bed Scrubber – The flow rate meter used to measure the packed-bed scrubber liquid flow rate or the scrubber refresh flow rate shall be installed, maintained, calibrated and operated in accordance with the manufacturer's specifications. The flow rate shall be observed by the permittee with a frequency not less than once per day or more frequently as sufficient to ensure good performance of the packed-bed scrubber. The permittee shall keep a log of observations from the flow rate meter.  
(9 VAC 5-80-110 and Condition 11 of October 15, 2004 SOP)
5. Monitoring Device and Observation/EG Recovery System – The EG recovery system used to reclaim EG shall be equipped with a device to continuously measure and record the temperature from the exhaust of the pre-cooler, using a thermocouple and temperature chart recorder or equivalent as approved by the DEQ. The pre-cooler optimum operating temperature shall be 100°F ±10°F or alternate baseline temperature as determined during the initial compliance test. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the EG recovery system is operating.  
(9 VAC 5-80-110 and Conditions 8 and 10 of October 15, 2004 SOP)
6. Monitoring Device/Demister - The EG recovery system shall be equipped with a device to continuously measure the pressure drop across the Brinks demister. The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when EG recovery system is operating.  
(9 VAC 5-80-110 and Condition 8 of October 15, 2004 SOP)

7. Monitoring Device Observation/Demister - To ensure good performance, the monitoring device used to continuously measure the pressure drop across each Brinks demister shall be observed by the permittee with a frequency of not less than once per day, that Dye Line #7 (EU07) operated. The permittee shall keep a log of the pressure drop observations from the EG recovery system.  
(9 VAC 5-80-110 and Condition 10 of October 15, 2004 SOP)
8. Visible Emissions – At least one time per calendar week, when Dye Line #7 (EU07) is operating, an observation of the presence of visible emission shall be made. Visual observations shall consist of a visual survey of the EG recovery system exhaust stacks, roof vents and wall vents over a 2-minute period while the process is operating to identify if there are visible emissions, other than condensed water vapor. If any visible emissions are observed, the permittee shall:
  - a. Verify that the equipment and/or control device causing the visible emission is operating according to the manufacturer's specifications or other site-specific acceptable operating conditions. If the equipment or control device is not operating properly, the permittee shall take timely corrective action such that the dye line resumes operation with no visible emissions, or,
  - b. Perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emission from the EG recovery system exhaust stack, roof vents, and wall vents do not exceed 5 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 5 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the line resumes operation with visible emissions of 5 percent or less.

The permittee shall maintain a visual observation log for the EG recovery system exhaust stack, roof vents and wall vents to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there was visible emission, any VEE recordings and any necessary corrective action.

In the event that visible emission are observed from any given stack or process emission point, the corrective action procedures and Method 9 testing described in this condition shall be immediately instituted. Once weekly visible emission observations are completed for a 6-month period without observing any visible emissions, once per month visible emission observations may be instituted at that stack or process emission point. After correction of any opacity problem, the permittee shall conduct weekly visible emission observations at that stack or process emission point for at least a 6-month period before returning to a monthly schedule.  
(9 VAC 5-80-110)

9. Operations and Maintenance – The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

- a. develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance and maintain an inventory of spare parts;
- b. have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum;
- c. train operators in the proper operation of all air pollution control equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training; and

Records of maintenance, inspections and training shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.  
(9 VAC 5-80-110 and Condition 28 of October 15, 2004 SOP)



10. Compliance Assurance Monitoring (CAM) - The permittee shall monitor, operate, calibrate and maintain the CAM control device(s) controlling the EU07 according to the following:

	<b>Indicator 1</b>	<b>Indicator 2</b>	<b>Indicator 3</b>
<b>Indicator</b>	Room Negative Pressure	Pre-cooler Exhaust Temperature	Pressure Drop Across Demister
<b>Measurement Approach</b>	The pressure is measured by a magnahelic gauge.	The temperature is monitored by a thermocouple.	The pressure is measured by a magnahelic gauge.
<b>Indicator Range</b>	Pressure drop reading $\geq -0.007$ inches of water. An excursion is defined as a pressure drop reading of less than $-0.007$ inches water ( $-0.006$ inches of water or less).	Exhaust temperature $\leq 100^{\circ}\text{F}$ . An excursion is defined as a temperature reading of $\geq 110^{\circ}\text{F}$ .	Pressure drop $\geq 3.0$ and $\leq 10.0$ inches of water. An excursion is defined as a pressure drop reading outside of the indicator range.
<b>QIP Threshold</b>	No more than three excursions below the indicator range in any semi-annual reporting period.	No more than three excursions above the indicator range in any semi-annual reporting period.	No more than three excursions outside of the indicator range in any semi-annual reporting period.
<b>Performance Criteria:</b>	The monitoring system for the room consists of a differential pressure gauge that compares the pressure inside and outside the room enclosure.	The monitoring system for the Pre-cooler consists of a thermocouple located in the exhaust duct from the pre-cooler.	The monitoring system for the Demister consists of a differential pressure gauge that compares the pressure drop across the inlet and outlet of the Demister.
<b>Data Representatives</b>	Accuracy: $\pm 1\%$	Accuracy: $\pm 5^{\circ}\text{F}$	Accuracy: $\pm 1\%$
<b>Verification of Operational Status</b>	Pressure drop $\geq -0.007$ inches of water across the room.	Temperature $\leq 100^{\circ}\text{F}$ .	Pressure drop across the demister between 3.0 and 10.0 inches of water.
<b>QA/QC Practices and Criteria</b>	Magnahelic gauge is factory calibrated. The accuracy of the magnahelic gauge will be checked at least annually. The manufacturer's recommendations will be used at a minimum.	The thermocouple is factory calibrated. The accuracy of the thermocouple will be checked at least annually. The manufacturer's recommendations will be used at a minimum.	Magnahelic gauge is factory calibrated. The accuracy of the magnahelic gauge will be checked at least annually. The manufacturer's recommendations will be used at a minimum.
<b>Monitoring Frequency</b>	Pressure drop shall be measured continuously and observed at least once per shift.	Temperature readings are measured continuously.	Pressure drop shall be measured continuously and observed at least once per day.
<b>Data Collection Procedures</b>	Results of once per shift observations shall be recorded in a log.	The temperature measurements will be recorded continuously.	Results of once per day observations shall be recorded in a log.

	<b>Indicator 4</b>
<b>Indicator</b>	Liquid Flow Rate
<b>Measurement Approach</b>	Flow Rate Monitor
<b>Indicator Range</b>	Liquid flow rate of 190 gpm. An excursion is defined as a liquid flow rate of less than 140 gpm or greater than 210 gpm.
<b>QIP Threshold</b>	No more than three excursions below the indicator range in any semi-annual reporting period.
<b>Performance Criteria:</b>	The monitoring system for the scrubber consists of a flow meter that measures the liquid flow rate through the scrubber.
<b>Data Representatives</b>	Accuracy: $\pm 0.25\%$
<b>Verification of Operational Status</b>	Liquid flow rate between 140 and 210 gpm through the scrubber.
<b>QA/QC Practices and Criteria</b>	Flow meter is factory calibrated. The accuracy of the flow meter will be checked at least annually. The manufacturer's recommendations will be used at a minimum.
<b>Monitoring Frequency</b>	Liquid flow rate shall be measured continuously and observed at least once per shift.
<b>Data Collection Procedures</b>	Results of once per shift observations shall be recorded in a log.

11. Compliance Assurance Monitoring (CAM) - The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.  
(9 VAC 5-80-110 E and 40 CFR 64.6 (c))
12. Compliance Assurance Monitoring (CAM) - At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.  
(9 VAC 5-80-110 E and 40 CFR 64.7 (b))
13. Compliance Assurance Monitoring (CAM) - Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that EU07 is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.  
(9 VAC 5-80-110 E and 40 CFR 64.7 (c))
14. Compliance Assurance Monitoring (CAM) - Upon detecting an excursion or exceedance, the permittee shall restore operation of EU07 (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.  
(9 VAC 5-80-110 E and 40 CFR 64.7 (d)(1))
15. Compliance Assurance Monitoring (CAM) - Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.  
(9 VAC 5-80-110 E and 40 CFR 64.7(d)(2))

16. Compliance Assurance Monitoring (CAM) - If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Air Compliance Manager, West Central Regional Office and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. (9 VAC 5-80-110 E and 40 CFR 64.7(e))
17. Compliance Assurance Monitoring (CAM) - If the number of exceedances or excursions exceeds the QIP Threshold stated in Condition IX.B.10, the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection. The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following, as appropriate:
  - a. Improved preventative maintenance practices;
  - b. Process operation changes;
  - c. Appropriate improvements to control methods;
  - d. Other steps appropriate to correct control performance; and
  - e. More frequent or improved monitoring.(9 VAC 5-80-110 E and 40 CFR 64.8(a) and (b))

### **C. Recordkeeping**

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Air Compliance Manager, West Central Regional Office. These records shall include, but are not limited to:
  - a. emission calculations for VOCs from Dye Line #7 (EU07) using calculation methods approved by the Air Compliance Manager, West Central Regional Office to verify compliance with the emissions limitations in Condition IX.A.5, hourly emissions shall be calculated as a monthly average and annual emissions shall be calculated monthly as the sum of each consecutive 12-month period;
  - b. the mass emission rates for volatile organic compounds, Ethylene Glycol and N-

methylpyrrolidone as a function of production (e.g. lbs/square foot film processed) as determined from the most recent performance test using a calculation method approved with the test protocol by the Air Compliance Manager, West Central Regional Office;

- c. operation and control device monitoring records for the EG recovery system's exhaust stack temperature, dye bath fume capture system pressure drop, and demister pressure drop as required in Conditions IX.B.2, IX.B.4, IX.B.5 and IX.B.7. The operating parameter logs shall include the date and time, name of the observer, the value of the parameter observed, and any corrective action;
- d. the permittee shall maintain Material Safety Data Sheets (MSDS) or Certified Product Data Sheets (CPDS) and formulation data showing VOC content, HAP content, water content and solids content for each coating, thinner, cleaning solution, or other materials used in Dye Line #7 (EU07). In the absence of such documentation, the permittee shall keep onsite records showing VOC content of raw materials determined using 40 CFR Part 60, Appendix A Reference Method 24 or equivalent method acceptable to the DEQ;
- e. monthly and annual emissions (in pounds or tons) of each HAP. Hourly emissions shall be calculated as a monthly average, annual emissions shall be calculated monthly as the sum of each consecutive 12-month period;
- f. control efficiency of the wet scrubber and the ethylene glycol recovery system, as determined by the most recent performance test using a calculation method approved with the test protocol by the Air Compliance Manager, West Central Regional Office.
- g. scheduled and unscheduled maintenance and operator training as required in Condition IX.B.9.
- h. monthly and annual operating hours of Dye Line #7 (EU07), calculated as the sum of each consecutive 12-month period;
- i. annual production of film processed on Dye Line #7 (EU07) in square feet or equivalent, calculated monthly as the sum of each consecutive 12-month period;
- j. results of all performance tests;
- k. the results of the weekly and/or monthly opacity observations and any corrective actions to reduce emissions as required in Condition IX.B.8; and

1. Compliance Assurance Monitoring (CAM) Recordkeeping - The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to §64.8 and any activities undertaken to implement a quality improvement plan (QIP), and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). (9 VAC 5-80-110 E and 40 CFR 64.9(b))

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110 and Condition 21 of October 15, 2004 SOP)

#### **D. Testing**

1. Testing/Monitoring Ports - The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30, 9 VAC 5-80-110 and Condition 22 of October 15, 2004 SOP)

#### **E. Reporting**

1. Performance Tests – The details of all performance tests are to be arranged with the Air Compliance Manager, West Central Regional Office. The permittee shall submit a test protocol at least thirty (30) days prior to testing. One copy of the test results shall be submitted to the Air Compliance Manager, West Central Regional Office within 45 days after test completion.  
(9 VAC 5-80-110 and 9 VAC 5-80-1180)
2. Compliance Assurance Monitoring (CAM) Reporting - the permittee shall submit CAM reports as part of the Title V semi-annual monitoring reports required by General Condition C.3 of this permit to the Director, West Central Regional Office. Such reports shall include at a minimum:
  - a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
  - b. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

- c. A description of the actions taken to implement a quality improvement plan (QIP) during the reporting period as specified in §64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

(9 VAC 5-80-110 F and 40 CFR 64.9(a))

See General Conditions, Section XV.C, D, E and F for additional reporting requirements.

## **X. Process Equipment Requirements (EU01, 03, 04, 24, 26 & 27)**

### **A. Limitations**

1. Visible Emissions Visible emissions from the dye lines (EU01, EU03 and EU04) and coaters/laminators (EU24, EU26 and EU27) shall not exceed 20% opacity, except for one six-minute period in any one hour of not more than 60% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of presence of water vapor shall not be a violation of this section.  
(9 VAC 5-40-80)

### **B. Recordkeeping**

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Air Compliance Manager, West Central Regional Office. These records shall include, but are not limited to:
  - a. The yearly throughput of VOCs for coaters/laminators (EU24, EU26 and EU27) in units of tons, calculated as the sum of each consecutive 12 month period. (Condition 11 of June 8, 1994 NSR Permit)
  - b. The permittee shall maintain Certified Product Data Sheets (CPDS) and formulation data showing VOC content, HAP content, water content and solids content for each coating, adhesive, thinner, cleaning solution, or other materials used in coating lines EU24, EU26 and EU27. In the absence of such documentation, the permittee shall keep onsite records showing VOC content of raw materials determined using 40 CFR Part 60, Appendix A Reference Method 24 or equivalent method acceptable to the DEQ;

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110)

## **XI. Hazardous Air Pollutant Emissions – MACT JJJJ**

### **A. Applicability**

1. The following terms and conditions are the requirements of 40 CFR Part 63 Subpart JJJJ, National Emission Standards for Hazardous Pollutants: Paper and Other Web Coating. A current copy of 40 CFR Part 63 Subpart JJJJ has been attached. As used in this section, all terms shall have the meaning as defined in 40 CFR 63.2 and 40 CFR 63.3310. The effective date of this section is December 5, 2005.  
(9 VAC 5-80-110, 9 VAC 5-60-100 and 40 CFR Part 63 Subpart JJJJ)
2. Contemporaneous with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility the date of the change and the compliance option in effect.  
(9 VAC 5-80-110 J and 40 CFR 70.6 (a)(9))
3. Except where this permit is more restrictive than the applicable requirement, the MACT equipment as described in 40 CFR Part 63.3300 shall be operated in compliance with the requirements of 40 CFR Part 63, Subpart JJJJ.  
(9 VAC 5-80-1180, 9 VAC 5-60-90 and 9 VAC 5-60-100)

### **B. Limitations**

Organic Hazardous Air Pollutant (HAP) emissions from the collection of all web coating lines at the facility that meet the applicability requirements contained in 40 CFR Part 63.3300, must be limited to the level specified in 1, 2, 3 or 4 below:

1. No more than 5 percent of the organic HAP applied for each month (95 percent reduction); or
2. No more than 4 percent of the mass of coating materials applied for each month; or
3. No more than 20 percent of the mass of coating solids applied for each month; or
4. If the permittee uses an oxidizer to control organic HAP emissions, operate the oxidizer such that the outlet organic HAP concentration of no greater than 20 parts per million by volume (ppmv) by compound on a dry basis and the efficiency of the capture system is 100 percent.

(9 VAC 5-80-110, 9 VAC 5-60-100 and 40 CFR 63.3320(a),(b) and (c))



### **C. Startup, Shutdown and Malfunction Plan**

To demonstrate compliance with the emission standards in Condition XI.B when using a control device, the permittee must develop and implement a written startup, shutdown and malfunction plan according to §63.6(e)(3).

(9 VAC 5-80-110, 9 VAC 5-60-100, 40 CFR 63.3340 and 40 CFR 63.6(e)(3))

### **D. Monitoring and Recordkeeping**

#### **1. Continuous Parameter Monitoring System**

To demonstrate compliance with the emission standards in Condition XI.B when using a control device, the permittee, following the date on which the initial performance test of a control device is completed or the permittee receives a performance test waiver, must monitor and inspect each capture system and each control device used to comply with the limits in Section XI.B. The source must install and operate the Continuous Parameter Monitoring Systems (CPMS) as specified in the following:

- a. Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. The permittee must have a minimum of four equally spaced successive cycles of CPMS operation to have a valid hour of data. (§63.3350(e)(1))
- b. The permittee must have valid data from at least 90 percent of the hours during which each line operated. (§63.3350(e)(2))
- c. The permittee must determine the hourly average of all recorded readings according to the following:
  - i. To calculate a valid hourly value, you must have at least three of four equally spaced data values from that hour from a continuous monitoring system (CMS) that is not out-of-control.
  - ii. Provided all of the readings recorded in accordance with paragraph (c) of this section clearly demonstrate continuous compliance with the standard that applies to the permittee, then the permittee is not required to determine the hourly average of all recorded readings. (§63.3350(e)(3))
- d. The permittee must determine the rolling 3-hour average of all recorded readings for each operating period. To calculate the average for each 3-hour averaging period, the permittee must have at least two of three of the hourly average for that period using only average values that are based on valid data (i.e. not from out-of-control periods). (§63.3350(e)(4))

- e. The permittee must record the results of each inspection, calibration, and validation check of the CPMS. (§63.3350(e)(5))
- f. At all times, the permittee must maintain the monitoring system in proper working order including, but not limited to, maintaining necessary parts for routine repairs of the monitoring system. (§63.3350(e)(6))
- g. Except for monitoring malfunctions, associated repairs, or required quality assurance or control activities (including calibration checks or required zero and span adjustments), the permittee must conduct all monitoring at all times that the unit is operating. Data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities shall not be used for purposes of calculating the emissions concentrations and percent reductions specified in Section XI.B. The permittee must use all the valid data collected during all other periods in assessing compliance of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. (§63.3350(e)(7))
- h. Any averaging period for which the permittee does not have valid monitoring data and such data are required constitutes a deviation; and the permittee must notify the Administrator in accordance with §63.3400(c). (§63.3350(e)(8))
- i. If the permittee is using an oxidizer to comply with the emission standards, the permittee must comply with the following:
  - i. Install, calibrate, maintain and operate temperature monitoring equipment according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator must be verified every 3 months or the chart recorder, data logger or temperature indicator must be replaced. The permittee must replace the equipment whether the permittee chooses not to perform the calibration or the equipment cannot be calibrated properly. (§63.3350(e)(9)(i))
  - ii. For an oxidizer other than a catalytic oxidizer, install, calibrate, operate and maintain a temperature monitoring device equipped with a continuous recorder. The device must have an accuracy of  $\pm 1$  percent of the temperature being monitored in degrees Celsius, or  $\pm 1^\circ$  Celsius, whichever is greater. The thermocouple or temperature sensor must be installed in the combustion chamber at a location in the combustion zone. (§63.3350(e)(9)(ii))
  - iii. For a catalytic oxidizer, install, calibrate, operate and maintain a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of  $\pm 1$  percent of the temperature being monitored in degrees Celsius or  $\pm 1$  degree Celsius, whichever

is greater. The thermocouple or temperature sensor must be installed in the vent system at the nearest feasible point to the inlet and outlet of the catalyst bed.

Calculate the temperature rise across the catalyst. (§63.3350(e)(9)(iii))

As an alternative to monitoring the temperature difference across the catalyst bed, the permittee may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for the catalytic oxidizer as specified in Condition XI.E. During the performance test, the permittee must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for the catalytic oxidizer. (§63.3360(e)(3)(ii)(C))

(9 VAC 5-80-110, 9 VAC 5-60-100 and 40 CFR 63.3350 (a), (b) and (e))

## 2. Site-Specific Capture System Monitoring Plan

If the permittee is complying with the emission standards in Condition XI.B through the use of a capture system and control device for one or more web coating lines, the permittee must develop a site-specific monitoring plan containing the information specified in (a), (b) and (c) of this section. The permittee must monitor the capture system in accordance with (d) of this section. The permittee must make the monitoring plan available for inspection by the permitting authority upon request.

- a. The Site-Specific monitoring plan must:
  - i. identify the operating parameter to be monitored to ensure that the capture efficiency determined during the initial compliance test is maintained;
  - ii. explain why this parameter is appropriate for demonstrating ongoing compliance;
  - iii. identify the specific monitoring procedures; and
  - iv. be reviewed and updated by the permittee at least annually.
- b. The monitoring plan must specify the operating parameter value or range of values that demonstrate compliance with the emission standards in Condition XI.B. The specified operating parameter value or range of values must represent the conditions present when the capture system is being properly operated and maintained.
- c. The permittee must conduct all capture system monitoring in accordance with the plan.
- d. Any deviation from the operating parameter value or range of values which are monitored according to the plan will be considered a deviation from the operating limit.

(9 VAC 5-80-110, 9 VAC 5-60-100 and 40 CFR 63.3350(f))

#### **E. Catalytic Oxidizer Alternative Monitoring**

1. As an alternative to monitoring the temperature difference across the catalyst bed as described in Condition XI.D.1.i.iii, the permittee may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for the catalytic oxidizer. The permittee must develop and implement an inspection and maintenance plan for the catalytic oxidizer(s) for which the permittee elects to monitor according to Condition XI.D.1.i.iii. The plan must address, at a minimum, the elements specified in the following:
  - a. annual sampling and analysis of the catalyst activity (i.e., conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures;
  - b. monthly inspection of the oxidizer system including the burner assembly and fuel supply lines for problems; and
  - c. annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion and settling. If problems are found, the permittee must take corrective action consistent with the manufacturer's recommendations and conduct a new performance test to determine destruction efficiency in accordance with this section.

(9 VAC 5-80-110, 9 VAC 5-60-100 and 40 CFR 63.3360(e)(3)(ii)(C))

#### **F. Performance Tests**

1. The affected source must comply with the performance test requirements contained in 40 CFR Part 63.3360.  
(9 VAC 5-80-110, 9 VAC 5-60-100 and 40 CFR 63.3360)

#### **G. Requirements for Showing Compliance**

1. If the permittee is complying with the emission standards in Condition XI.B through the use of capture systems and control devices for web coating lines that have work stations that are both always-controlled and never-controlled (lines with capture and control only have always-controlled work stations), the permittee must:
  - a. Operate capture systems and control devices and demonstrate an overall organic HAP control efficiency of at least 95 percent for each month or operate capture systems and oxidizers so that an outlet organic HAP concentration of no greater than 20 ppmv by compound on a dry basis is achieved as long as the capture efficiency is 100 percent.  
(§63.3370(e))

- b. Demonstrate compliance in accordance with the following provisions:
- i. Oxidizers - Demonstrate compliance through performance tests of capture efficiency and control device efficiency, continuous monitoring of capture system, and CPMS for control device operating parameters for each oxidizer used to control emissions from one or more web coating lines, you must:
    1. Monitor the operating parameter in accordance with §63.3350(e) to ensure control device efficiency – See Condition XI.D.1;
    2. For each capture system delivering emissions to that oxidizer, monitor the operating parameter established in accordance with §63.3350(f) to ensure capture efficiency – See Condition XI.D.2; and
    3. Determine the organic HAP emissions for those web coating lines served by each capture system delivering emissions to that oxidizer in accordance with paragraphs (k)(1)(i) through (iii) of 40 CFR 63.3370 – See Condition XI.G.1.c. (§63.3370(n)(3)(i), (ii) and (iii))
  - ii. Uncontrolled coating lines - The source must determine the organic HAP applied on each uncontrolled web coating line using Equation 6 of 40 CFR 63.3370. The organic HAP emitted from an uncontrolled web coating line is equal to the organic HAP applied on that web coating line. (§63.3370(n)(4))
- c. Oxidizer compliance demonstration procedures. If the permittee uses an oxidizer to control emission, the permittee must show compliance by following the procedures in paragraph (a) of this section.
- iii. Demonstrate initial compliance through performance tests to capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters as specified as follows:
    1. Determine the oxidizer destruction efficiency using the procedures in §63.3360(e).
    2. Determine the capture system capture efficiency in accordance with §63.3360(f).
    3. Capture and control efficiency monitoring. Whenever a web coating line is operated, continuously monitor the operating parameters established in accordance with §63.3350(e) and (f) to ensure capture and control efficiency. (63.3370(k)(1)(i), (ii) and (iii))
- d. Convert the information obtained under paragraph (3) of this section into the units of the selected compliance option using the following calculation procedure:

Calculate the organic HAP emissions for the affected source for the month by summing all organic HAP emissions calculated according to paragraph (n)(3)(iii) of this section. (§63.3370(n)(5)(i))

2. The affected source is in compliance with the emission standards in §63.3320(b)(1) for the month if all operating parameters required to be monitored under paragraphs §63.3370(n)(1) through (3) were maintained at the values established under §§63.3350 and 63.3360; and the total mass of organic HAP emitted by the affected source was not more than 5 percent of the total mass of organic HAP applied for the month. The total mass of organic HAP applied by the affected source in the month must be determined using Equation 6 of this section. (§63.3370(n)(6))

If the affected source chooses to show compliance by meeting the emission standards in §63.3320(b)(2), (3) or (4), the permittee must follow the requirements contained in 40 CFR 63.3360, 40 CFR 63.3370 and all other conditions outlined in 40 CFR Part 63 Subpart JJJJ, as required.

(9 VAC 5-80-110, 9 VAC 5-60-90, 9 VAC 5-60-100 and 40 CFR 63.3360 and 63.3370)

## **H. Notifications, Reports and Records**

1. Semiannual Compliance Reports – Reports required under this section may be submitted according to the dates established in Condition XV.C.

The semiannual compliance reports must contain the information in paragraphs (c)(2)(i) through (vi) of 40 CFR 63.3400.

2. Startup, Shutdown and Malfunction reports must be submitted according to paragraph (g) of 40 CFR 63.3400.
3. Records – Each owner or operator of an affected source must maintain the records specified in paragraphs (a) of this section on a monthly basis in accordance with the requirements of §63.10(b)(1):
  - a. Records specified in §63.10(b)(2) of all measurements needed to demonstrate compliance, including:
    - i. Control device and capture system operating parameter data in accordance with the requirements of §63.3350(c), (e) and (f);
    - ii. Organic HAP content data for the purpose of demonstrating compliance in accordance with the requirements of §63.3360(c);
    - iii. Volatile matter and coating solids content data for the purpose of demonstrating compliance with the requirements of §63.3360(d);

- iv. Overall control efficiency determination using capture efficiency and control device destruction or removal efficiency test results in accordance with the requirements of §63.3360(e) and (f); and
  - v. Material usage, organic HAP usage, volatile matter usage and coating solids usage and compliance demonstrations using these data in accordance with the requirements of §63.3370(b), (c) and (d).
- b. Records specified in §63.10(c) for each CMS operated by the owner or operator in accordance with the requirements of §63.3350(b).

(9 VAC 5-80-110, 9 VAC 5-60-100 and 40 CFR 63.3400 and 63.3410)

## **XII. Insignificant Emission Units**

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted	Rated Capacity
34	Drum solvent storage	9 VAC 5-80-720B	VOCs	
35	Space Heaters	9 VAC 5-80-720A	Criteria Pollutants	
36	Lab hoods (Plant 1)	9 VAC 5-80-720A	VOCs	
37	Peerless natural gas fired boiler (Plant 1)	9 VAC 5-80-720C	Criteria Pollutants	1.8 MMBtu/hr
38	(4) Sputtering machines & (1) Pilot Unit (Plant 1)	9 VAC 5-80-720B	None	
39	Pilot dye line with electric dryer (Plant 2)	9 VAC 5-80-720A	VOCs	
40	Natural gas fired incinerators for Lines 29 & 32 (Plant 1)	9 VAC 5-80-720C	Criteria Pollutants	<10 MMBtu/hr
41	(2) Hot melt glue application units on Boxing Lines (Plant 1)	9 VAC 5-80-720B	VOCs	
42	Natural gas fired industrial air stream heater Rewind Area (Plant 1)	9 VAC 5-80-720C	Criteria Pollutants	0.714 MMBtu/hr
43	Pilot laminators with gas dryers	9 VAC 5-80-720B	VOCs, NO <sub>x</sub> , CO	
44	(2) Emergency diesel fired generator	9 VAC 5-80-720C	Criteria Pollutants	125 kw
44	(2) Diesel fuel storage tank	9 VAC 5-80-720B	VOCs	200 gallons
45	Propane storage tank (Plant 1)	9 VAC 5-80-720B	VOCs	1,000 gallons
46	(2) Natural gas fired industrial air stream heaters Master	9 VAC 5-80-720C	Criteria Pollutants	1.26 MMBtu/hr

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted	Rated Capacity
	Service Area (Plant 1)			
47	Natural gas fired space heaters (Plant 2)	9 VAC 5-80-720A	Criteria Pollutants	
48	(4) Metallizing Units (Plant 2)	9 VAC 5-80-720B	None	
49	Caustic Soda Cleaning Baths	9 VAC 5-80-720B	None	
50	Laboratory Hoods in Plant 2	9 VAC 5-80-720B	VOCs	
51	Gas-fired dryers for Dye Lines	9 VAC 5-80-720C	Criteria Pollutants	<10 MMBtu/hr
52	Manual Solvent Cleaning	9 VAC 5-80-720B	VOCs	<5,000 lbs solvent
53	Natural gas fired industrial air system space heaters (Plant 2)	9 VAC 5-80-720C	Criteria Pollutants	1.3 MMBtu/hr
54	Natural gas fired radiant space heaters (Plant 2)	9 VAC 5-80-720A	Criteria Pollutants	<10 MMBtu/hr
55	Water-based parts washer (one in each plant)	9 VAC 5-80-720B	VOCs	30-gallon units
56	Propane storage tank (Plant 2)	9 VAC 5-80-720B	VOCs	500 gallon capacity
57	Rag Compactor (Plant 2)	9 VAC 5-80-720B	VOCs	
60	Natural gas fired radiant space heaters (Plant 1)	9 VAC 5-80-720C	Criteria Pollutants	<10 MMBtu/hr each
61	Natural gas fired dryers – Lines 24, 26, 27, 29, 30, 31, 32, 33 & 34.	9 VAC 5-80-720C	Criteria Pollutants	<10 MMBtu/hr each
62	Natural gas fired incinerators for Lines 24, 26, 28, 29, 30, 30, 33 & 34	9 VAC 5-80-720C	Criteria Pollutants	<10 MMBtu/hr each
63	Diesel fired emergency water pump	9 VAC 5-80-720C	Criteria Pollutants	157 hp
63	Diesel fuel tank for emergency water pump	9 VAC 5-80-720B	Criteria Pollutants	200 gallons
64	Lathe lubricating oil use	9 VAC 5-80-720B	None	
011	Natural gas fired boiler for Dye Line No. 7	9 VAC 5-80-720C	Criteria Pollutants	4.0 MMBtu/hr
007T1	Ethylene Glycol Storage Tank	9 VAC 5-80-720B	HAP	236 gallons
007T2	Ethylene Glycol Storage Tank	9 VAC 5-80-720B	HAP	236 gallons
007T3	Ethylene Glycol Storage Tank	9 VAC 5-80-720B	HAP	236 gallons

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

### **XIII. Compliance Plan**

Not Applicable



#### **XIV. Permit Shield & Inapplicable Requirements**

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
Not Applicable	Not Applicable	Not Applicable

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.  
(9 VAC 5-80-140)

#### **XV. General Conditions**

##### **A. Federal Enforceability**

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.  
(9 VAC 5-80-110 N)

##### **B. Permit Expiration**

This permit has a fixed term of five years. The expiration date shall be the date five years from the effective date of this permit renewal. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

### **C. Recordkeeping and Reporting**

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
  - a. The date, place as defined in the permit, and time of sampling or measurements.
  - b. The date(s) analyses were performed.
  - c. The company or entity that performed the analyses.
  - d. The analytical techniques or methods used.
  - e. The results of such analyses.
  - f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)
2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110 F)
3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:
  - a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

- b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:
  - i. Exceedance of emission limitations or operational restrictions;
  - ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,
  - iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”
- d. The report shall be sent to the following address:

Air Compliance Manager, VA DEQ  
3019 Peters Creek Road  
Roanoke, VA 24019

(9 VAC 5-80-110 F)

#### **D. Annual Compliance Certification**

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and to DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. The identification of each term or condition of the permit that is the basis of the certification.
3. The compliance status.
4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
6. Such other facts as the permit may require to determine the compliance status of the source.
7. This annual compliance certification shall be sent to the following addresses:

Air Compliance Manager, VA DEQ  
3019 Peters Creek Road  
Roanoke, VA 24019

U. S. Environmental Protection Agency, Region III  
Clean Air Act Title V Compliance Certification (3AP00)  
1650 Arch Street  
Philadelphia, PA 19103-2029

(9 VAC 5-80-110 K.5)

**E. Permit Deviation Reporting**

The permittee shall notify the Air Compliance Manager, West Central Regional Office, within four (4) daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition XV.C of this permit. (9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

**F. Failure/Malfunction Reporting**

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Air Compliance Manager, West Central Regional Office, by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Air Compliance Manager, West Central Regional Office. (9 VAC 5-20-180 C)

**G. Severability**

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.  
(9 VAC 5-80-110 G.1)

**H. Duty to Comply**

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.  
(9 VAC 5-80-110 G.2)

**I. Need to Halt or Reduce Activity not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.  
(9 VAC 5-80-110 G.3)

**J. Permit Modification**

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605 or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.  
(9 VAC 5-80-190 and 9 VAC 5-80-260)

**K. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege.  
(9 VAC 5-80-110 G.5)

**L. Duty to Submit Information**

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.  
(9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.  
(9 VAC 5-80-110 K.1)

**M. Duty to Pay Permit Fees**

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.  
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

**N. Fugitive Dust Emission Standards**

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-90)

**O. Startup, Shutdown, and Malfunction**

At all times, including periods of startup, shutdown, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for

minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.  
(9 VAC 5-50-20 E)

**P. Alternative Operating Scenarios**

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.  
(9 VAC 5-80-110 J)

**Q. Inspection and Entry Requirements**

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

**R. Reopening For Cause**

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

**S. Permit Availability**

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

**T. Transfer of Permits**

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.  
(9 VAC 5-80-160)
2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)
3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)

**U. Malfunction as an Affirmative Defense**

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.
2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
  - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
  - b. The permitted facility was at the time being properly operated.



- c. During the period of the malfunction, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in the permit.
  - d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirement of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirements under 9 VAC 5-20-180 C.
- 3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
  - 4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

#### **V. Permit Revocation or Termination for Cause**

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-190 C and 9 VAC 5-80-260)

#### **W. Duty to Supplement or Correct Application**

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9 VAC 5-80-80 E)

#### **X. Stratospheric Ozone Protection**

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.

(40 CFR Part 82, Subparts A-F)

**Y. Asbestos Requirements**

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).  
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

**Z. Accidental Release Prevention**

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.  
(40 CFR Part 68)

**AA. Changes to Permits for Emissions Trading**

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.  
(9 VAC 5-80-110 I)

**BB. Emissions Trading**

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

**XVI. State-Only Enforceable Requirements**

The State Only requirements have not been included in the Title V permit at the request of the permittee.